1897.

PROCEEDINGS

82411

OF THE

UNITED STATES

NAVAL INSTITUTE.

VOLUME XXIII.

PUBLISHED QUARTERLY BY THE INSTITUTE.

ANNAPOLIS, MD.

GENERAL LIBRARY,
UNIV. OF MICH.
22 APR 1898

The Lord Baltimore Press
THE FRIEDENWALD COMPANY
BALTIMORE, MD., U. S. A.

CONTENTS.

No. 81.

Prize Essay for 1897: Torpedo-Boat Policy. By Lieutenant R. C. Smith, U. S. N., ... 1

Discussion:

Lieutenant E. W. Eberle, U. S. N., 54.—Lieutenant H. O. Rittenhouse, U. S. N., 58.—Ensign R. H. Jackson, U. S. N., 59.—Lieutenant-Commander J. C. Wilson, U. S. N., 60.—Lieutenant-Commander Richard Wainwright, U. S. N., 61.—Assistant Naval Constructor R. B. Dashiell, U. S. N., 62.—Wm. Laird Clowes, 65.—Naval Constructor Wm. J. Baxter, U. S. N., 66.—Lieutenant Philip Andrews, U. S. N., 67.

International Arbitration: How, and How Far is it Practicable? By Hon. John A. Kasson, LL. D., ... 69

Naval Law and Naval Courts. By Charles H. Lauchheimer, First Lieutenant, U. S. M. C., ... 85

Improvements in Ordnance and Armor in the Recent Past and Future. By P. R. Alger, Professor of Mathematics, U. S. N., ... 125

The Capabilities of the Chart Compass. By G. Herrle, U. S. Hydrographic Office, ... 141

Discussion:

Torpedo-Boat Policy. (Continued from page 67.)

Assistant Naval Constructor H. G. Gillmor, U. S. N., 153.—Lieutenant A. P. Niblack, U. S. N., 157.

The Composition of the Fleet. [See No. 79.]

Lieutenant J. M. Ellicott, U. S. N., 159.

Professional Notes, ... 165

Compressed Air System on the U. S. Monitor Terror.—Lubricating Ships' Bottoms to Increase Speed and Prevent Fouling.—The Miklaschewski Signal Lantern.—New Regulations for Entry of English Naval Cadets.—The Use of Homing Pigeons in the Italian Navy.—Search Lights in Coast Defense.—Tests of Armor and Shell.—Ships of War.

Book Notices, ... 189

Bibliographic Notes, ... 191

Annual Report of the Secretary and Treasurer of the U. S. Naval Institute, ... 205

Officers of the Institute, ... 208

Exchanges, ... 209

Special Notice.—Naval Institute Prize Essay, 1898, ... 211

Advertisements.

No. 82.

A Proposed Uniform Course of Instruction for the Naval Militia. By H. G. Dohrman, Associate Member U. S. Naval Institute, . . 211
Discussion:
Lieutenant-Commander Richard Wainwright, U. S. N., 223.—Col. J. L. Carter, Assistant Inspector-General, State of Massachusetts, 225.—Lieutenant J. H. Gibbons, U. S. N., 226.—Lieutenant A. P. Niblack, U. S. N., 228.—Lieutenant-Commander Arthur B. Denny, Massachusetts Naval Brigade, 357.—Lieutenant James Otis Porter, Massachusetts Naval Brigade, 357.—Commander J. W. Miller, 1st Naval Battalion, N. Y., 358.
The Composition and Arrangement of Ships' Batteries. By P. R. Alger, Professor of Mathematics, U. S. N., ... 229
Notes on the Yacht "Defender" and the Use of Aluminum in Marine Construction. By Richmond Pearson Hobson, Assistant Naval Constructor, U. S. N., ... 249
On the Perforation of Face-Hardened Armor. By Cleland Davis, Ensign, U. S. N., ... 283
Military Training. By Henry G. Beyer, Surgeon, U. S. N., . . 311
Replies to Criticisms of Essay on Torpedo-Boat Policy. [See No. 81.] Lieutenant R. C. Smith, U. S. N., ... 360
Professional Notes, ... 365
To Find the Great Circle Course by Inspection.—Coaling War-Ships at Sea.—Liquid Fuel.—The Dum-Dum Bullet.—Tests of Armor and Shell.—Ships of War.
Book Notices and Reviews, ... 393
Bibliographic Notes, ... 397
Officers of the Institute, ... 413
Special Notice.—Naval Institute Prize Essay, 1898, ... 414
Advertisements.

No. 83.

Torpedoes in Exercise and Battle. By Lieutenant J. M. Ellicott, U. S. N., 413
Washington's Forgotten Maxim. Address of Hon. Theodore Roosevelt, ... 447
The Consolidated Mess of the Crew of the U. S. S. Indiana. By Lieutenant Benton C. Decker, U. S. N., ... 463
The Sailor in the Revolution. By Commander C. F. Goodrich, U. S. N., 469
The Development of Smokeless Powder. By Lieutenant John B. Bernadou, U. S. N., ... 495
The Naval Policy of America as Outlined in Messages of the Presidents of the United States, from the Beginning to the Present Day. By Hon. Theodore Roosevelt, ... 509
Notes on the Yacht "Defender" and the Use of Aluminum in Marine Construction. By Richmond Pearson Hobson, Assistant Naval Constructor, U. S. N. (Continued from No. 82.) . . . 523
Discussion:
Torpedoes in Exercise and Battle.
Lieutenant H. C. Poundstone, U. S. N., 563.—Lieutenant R. C. Smith, U. S. N., 563.

No. 83.—*Continued.*

The Consolidated Mess of the Crew of the U. S. S. Indiana.
Lieutenant-Commander E. B. Barry, U. S. N., 566.—Lieutenant-Commander Daniel Delehanty, U. S. N., 566.—Captain C. M. Chester, U. S. N., 569.—Lieutenant W. F. Fullam, U. S. N., 570.—Captain A. S. Barker, U. S. N., 571.
Continued Discussion of Essay by Dohrman. (See No. 82.)
John S. Watters, Commander, La. N. M., 572.
Professional Notes, ... 575
The Protection of Warships.—New Torpedo Tube for Japanese Battle-Ship Fuji.—Cylindrical Water-tight Door.—Trial of Sims-Dudley Gun.—England's Fleet Manœuvres.—Tests of Armor and Shell.—Ships of War.
Book Notice, ... 597
Bibliographic Notes, ... 599
Officers of the Institute, ... 615
Special Notice.—Naval Institute Prize Essay, 1898, ... 616
Advertisements.

No. 84.

Homing Pigeons as Messengers of the Fleet. By Lieutenant E. W. Eberle, U. S. N., ... 615
Pyro-Collodion Smokeless Powder. By Professor D. Mendeléef. Translated from the Russian by Lieut. John B. Bernadou, U. S. N., 645
Notes on the Obry Device for Torpedoes. By Ensign J. H. Sypher, U. S. N., ... 655
Search Curves.—Some Applications and Limitations. By Lieutenant-Commander Richard Wainwright, U. S. N., ... 663
Naval War College. Closing Address, Session of 1897. By Captain C. F. Goodrich, U. S. N., ... 679
Mechanism of Modern Naval War. By Charles H. Cramp, . . 689
Notes on the Literature of Explosives. No. XXVIII. By Charles E. Munroe, ... 705
Discussion:
Consolidated Mess of the Indiana. (See No. 83.)
Commander C. H. Stockton, U. S. N., 745.
Use of Aluminum in Naval Construction. (Nos. 82 and 83.)
Professor A. H. Sabin, 746.
Professional Notes, ... 747
Ground Glass Tubes for Use with the Navigational Sounding Machine, how to Make them on Board Ship.—Effects of Small-Calibered Rifle Bullets.—Automatic Fin-Boats.—Landing Operations in Russia.—System of Fog Signals.—Tonnage of the World's Leading Steamship Lines.—Speed of the Ellide.—Russian Smokeless Powder.—Tests of Armor and Ordnance.—Ships of War.
Book Notices and Reviews, ... 772
Bibliographic Notes, ... 775
Officers of the Institute, ... 791
Special Notice.—Naval Institute Prize Essay, 1899, ... 792
Advertisements.